User Manual

for Sign Command Version 1.10 and Higher

This user manual describes the operating functions and features of the Sign Command software v1.10 and higher for your Stewart TekStar LED display. For additional support, please contact:

2201 Cantu Ct. Suite 115
Sarasota, FL 34232
1-855-841-4624

For a video tutorial and further information, please visit:
www.stewartsigns.com/support/tekstar

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The Information boxes located within this manual contain additional important notes.

Alert boxes contain instructions that must be followed to ensure proper performance of the software or display.

What is Sign Command?

Sign Command is an advanced Windows®-based software application that controls the message on your LED display. With it, you can add text, images and video clips to your display. These items can be shown in a continuous loop on the display, or scheduled to be shown at a certain date or time.

Due to the variety of matrix sizes and display colors that are compatible with Sign Command, the examples contained in this manual may not reflect the capabilities of your display.

Terminology

The following terminology is used throughout this manual.

- *Display* – The portion of your outdoor sign that contains the LEDs and other electronic components. Displays come in a variety of sizes, and can be single or double-sided.
- *Display Item* - Text, images, video clips or other items that will be shown on the *display*.
- *Frame* – A single unit of a *script file* that can contain one or more *windows*. A frame can be scheduled to be shown on a certain date or at a certain time.
- *Script File* – A list of *frames* that will be shown on your *display*. The script file also contains information on duration, scheduling, and any transition effects selected.
- *Preview* – Viewing the *frame* within the software to see how it will look on the *display*.
- *Transmit* – Sending the *script file* over a network connection to the *display* for viewing by the public.
- *Window* – A portion of a *frame* that can contain one or more *display items*.

System Requirements

Sign Command can be run on any modern Windows®-based computer. The following are the minimum requirements for installation:

- Microsoft Windows® XP or above
- 512 MB RAM
- 24-bit graphic card
- 100 MB free drive space
- Network card (if using the network connection method)
- USB port (if using the USB drive connection method)

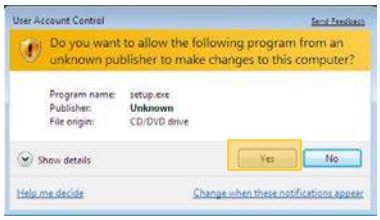
Installing the Software

*If you are upgrading from Sign Command version 0.2 or lower, you **must** also upgrade the firmware on your display. Please see **Upgrading the Firmware** in the appendix.*

The software installation file is available on the USB drive that was provided with the sign, or can be downloaded from www.stewartsigns.com/support/tekstar. Double click on the **signcommand.exe** file or run it from your web browser to start the installation process.

1. If you use Windows® 7 or Windows® Vista, you may have to click **Yes** to the User Account Control window.

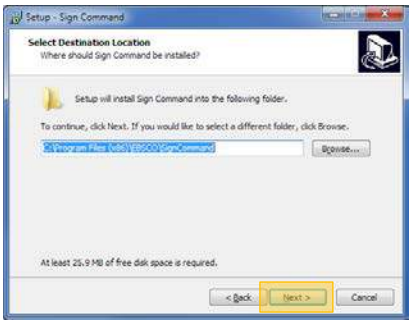
2. Click the **Next** button to start the software installation.

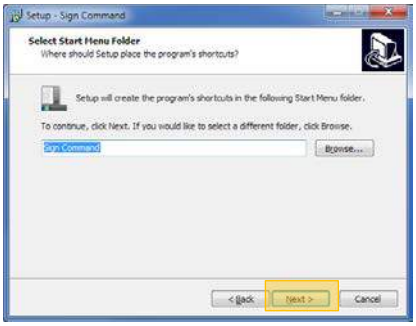

User Account Control
Do you want to allow the following program from an unknown publisher to make changes to this computer?
Program name: setup.exe
Publisher: Unknown
File origin: CD/DVD drive
Show details
Yes
No
Help me decide
Change when these notifications appear

Windows® 7 and Windows® Vista only

3. Accept the default destination location by clicking the **Next** button.

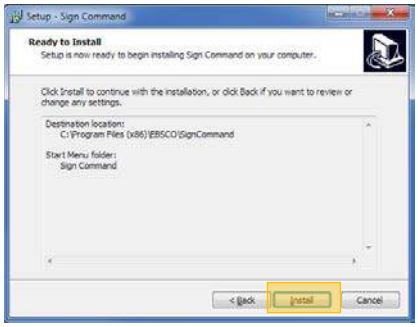
4. Accept the default Start Menu Folder by clicking the **Next** button.


Setup - Sign Command
Select Destination Location
Where should Sign Command be installed?
Setup will install Sign Command into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
Browse...
At least 25.9 MB of free disk space is required.
< Back
Next >
Cancel


Setup - Sign Command
Select Start Menu Folder
Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
Browse...
< Back
Next >
Cancel

5. Confirm your selections by clicking the **Install** button.

6. Complete the installation by clicking the **Finish** button.


Setup - Sign Command
Ready to Install
Setup is now ready to begin installing Sign Command on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location:
C:\Program Files (x86)\EBSCO\SignCommand
Start Menu folder:
Sign Command
< Back
Install
Cancel

Setup - Sign Command
Completing the Sign Command Setup Wizard
Setup has finished installing Sign Command on your computer. The application may be launched by selecting the installed icons.
Click Finish to exit Setup.
Finish

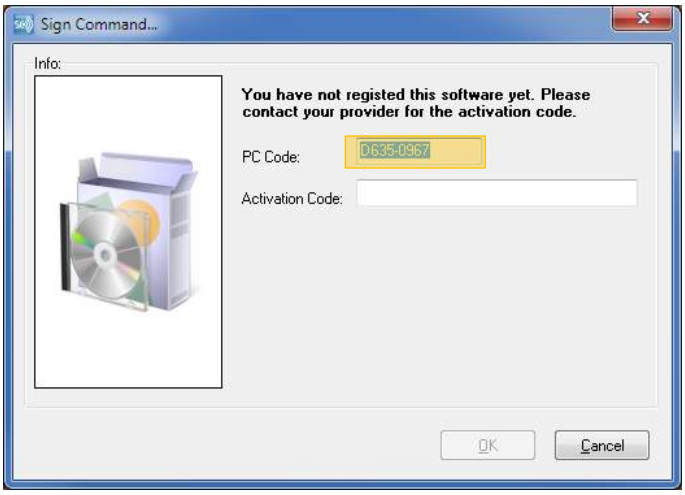
Once installed, the Sign Command icon will be available on your desktop and within your Start menu. Click on the icon to start Sign Command.

Activating the Software

In order to prevent unauthorized use of the software, each installation of Sign Command requires a unique activation code. This security measure helps to ensure that your display cannot be changed by a third party.

When first opening an unregistered version of Sign Command, the software activation window will appear. Copy the **PC Code** into your computer's clipboard by highlighting it and pressing **Ctrl+C**, or write it down.

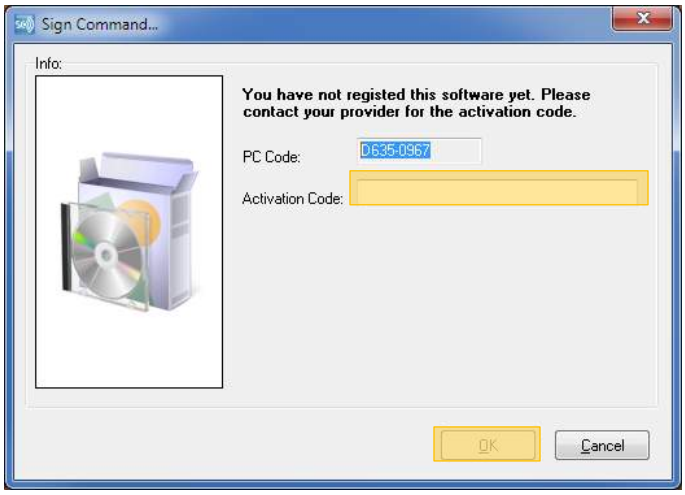
Go to: stewartsigns.com/support/tekstar-activation and complete the required form for software activation. When prompted for your PC code, press **Ctrl+V** on your keyboard to paste it into the field, or type it in.



Software Activation Window

A unique activation code will be shown immediately upon registration. Copy and paste this code, or type it, into the **Activation Code** field. Click the **OK** button to continue.

If the activation code is correct, the main Sign Command screen will appear. If the Activation Code is invalid, please double-check the PC Code used and Activation Code entered.



Enter the activation code and click OK.

A unique activation code is required for each computer that will have Sign Command installed. Repeat this registration process for each computer if installing in multiple locations.

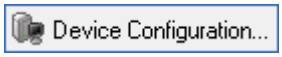
Configuring the Display

Before you can use Sign Command, you must first add and configure your display within the software. How your display is configured depends on how the software will communicate with your sign. The software can communicate with your sign in two ways:

- A **USB drive** can be used to physically move information from your computer to the sign. All TekStar signs have an external USB plug for this purpose.

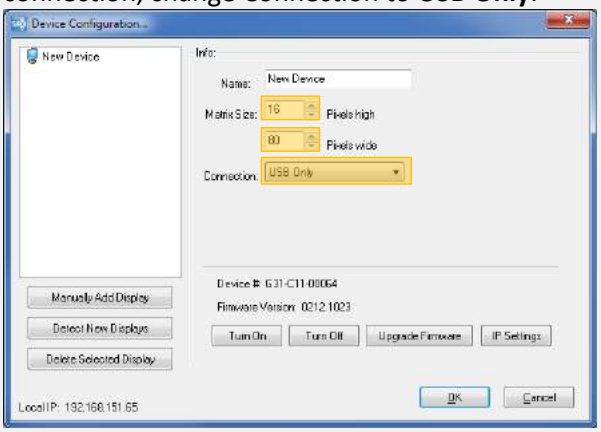
- A **network connection** can be used to communicate instantly with the sign. This connection can be achieved with a network cable, wireless transmitter or other equipment. *This method is optional and was determined at the time the sign was purchased.*

*To establish a **network connection**, your computer and TekStar sign must be on the same computer network. Network configuration is the responsibility of the customer.*

Click 

in the toolbar.

USB Connection
If your display does not have a network connection, change Connection to **USB Only**.



Enter the **Height** and **Width** of your display matrix in pixels. The matrix size can be found in your order information or by counting the groupings of LEDs on the display. Height will be 16, 24 or 32. Width will be 80 or 112.

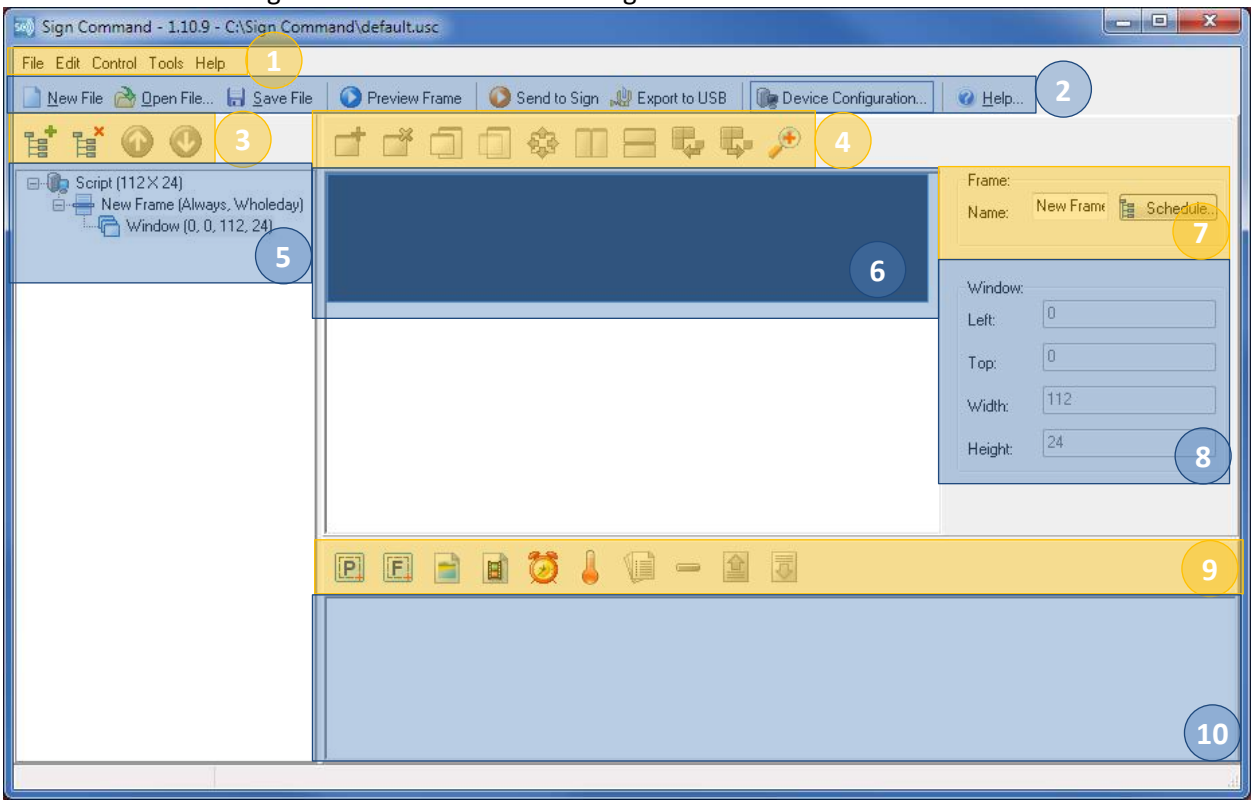
Network Connection
If your display has a network connection, Sign Command will attempt to locate it automatically.

If found, the **Height**, **Width** and **IP Address** will be filled in automatically. *If you have a network connected sign that cannot be found, please refer to **Troubleshooting a Network Connection** in the appendix.*

Optionally, you may enter a **Name** for the display. Once configuration is complete, click **OK** to continue.

Screen Overview

The main screen for Sign Command has the following sections with a window selected:



1. *File Bar* – All functions of the software such as previewing, saving and transmitting a script file are available from this bar.
2. *Toolbar* – Allows quick access to some of the more commonly used functions in the *file bar*.
3. *Frame Controls* – These controls allow you add, remove and order frames.
4. *Window Controls* – These controls allow you to add, remove and position windows within the frame. By default, these controls are disabled. A zoom control also allows you to adjust the zoom level of the *frame editor*.
5. *Window & Frame Tree* – A list of all existing frames and windows in your script file. Clicking on a frame or window within the tree will select it for editing.
6. *Frame Editor* – This editor allows you to visually arrange windows within the frame and view selected display items.
7. *Frame Settings* – These controls allow you to schedule and duration times set for the selected frame.
8. *Window Settings* – These controls allow you specify settings for the selected window. By default, these controls are disabled.
9. *Display Item Controls* – These controls allow you to add, remove and order various display items such as text, images, video clips, time and temperature. A window must be selected for these items to be visible.
10. *Display Item List* – This list will show all display items that have been added to the selected window.

Display Items

A display item is simply text or graphics to be shown on the sign. If more than one display item is added, they will be shown one at a time for the length specified within each item.

A window must be selected for the following buttons to be available.
***Click the large black box** in the center of Sign Command to select the current window.*

Add Pixel Text – Adds text in an optimized LED font to the selected window.

Add Font Text – Adds text in any Windows® font to the selected window.

Add Image – Adds an image to the selected window.

Add Video Clip – Adds a video clip to the selected window.

Add Date/Time – Adds the current date or time to the selected window.

Add Temperature – Adds the current temperature to the selected window.

Modify Item – Edits the properties for the selected item.

Delete Item – Removes the selected item from the window.

Move Item Up – Moves the selected item to show sooner in the list.

Move Item Down – Moves the selected item to show later in the list

Adding Pixel Text

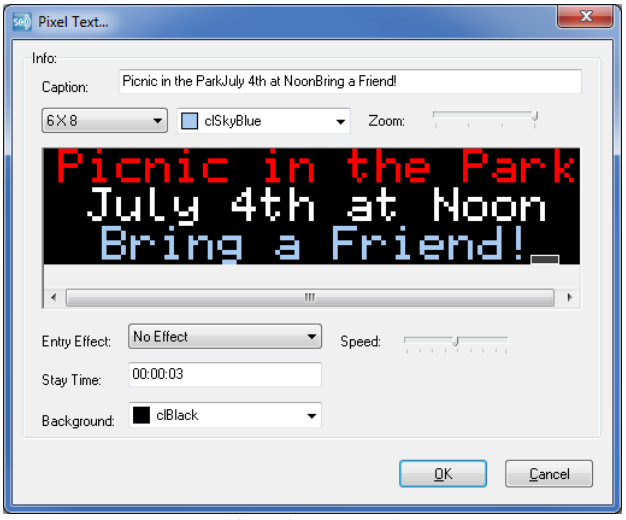
Pixel text uses special fonts designed for maximum readability and optimal message length on your LED display. It is recommended to use pixel text in most situations.

With a window selected, click **Add Pixel Text** in the Display Items toolbar.

Type the message into the black box at the center of the window. The **Font Size** and **Color** can be selected independently for each line.

Select an **Entry Effect** if you would like the text to transition on and off of the display. The speed of the effect can be controlled with the slider.

The **Stay Time** is the duration that the text will stay on the sign. Stay times are always listed as `hours:minutes:seconds`, and does not include the time used by the Entry Effect.



Add Pixel Text Window

A **Background** color can also be selected for the text. The default color is black.

The amount of text you can place on the display depends on the matrix size. Displays 16 pixels high can fit up to two lines of text; 24 up to three lines and 32 up to four lines.

Adding Font Text

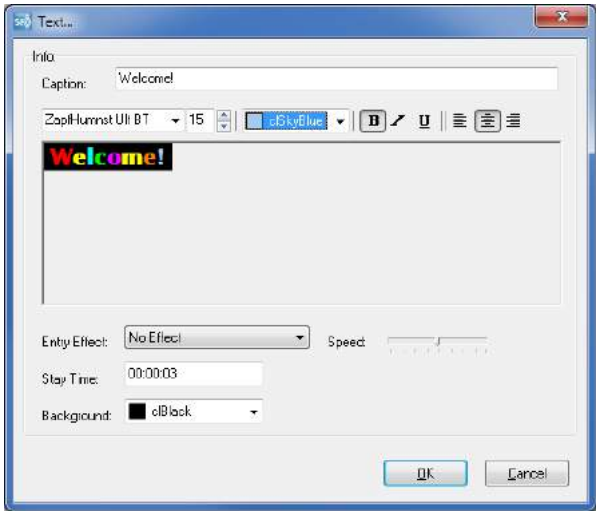
The Font Text display item allows you to use any font installed on your Windows™ operating system. For TekStar signs, it is recommended that this feature is only used for a single line of text.

With a window selected, click **Add Font Text** in the Display Items toolbar.

Type the message into the black box at the center of the window.

Font, **Size** and **Color** can be selected independently for each character.

As with Pixel Text, the **Entry Effect**, **Stay Time** and **Background** color can also be specified.



Add Font Text Window

Scrolling Text

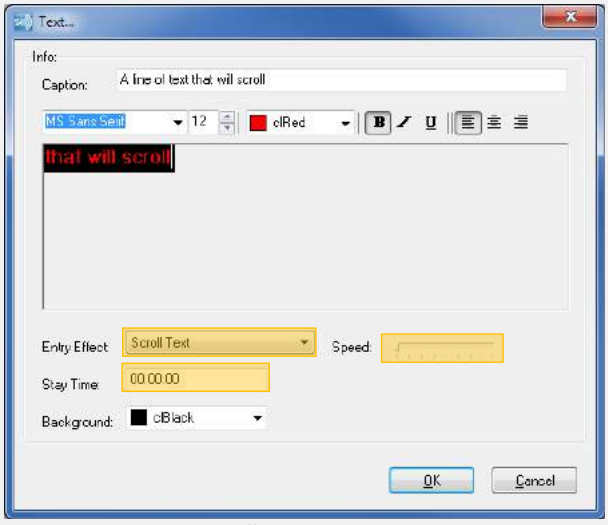
Using **Font Text**, a line of text can be scrolled from right to left across the display in a continuous motion. This gives the effect similar to a stock ticker.

After typing a line of text and selecting the font, size and color, change the **Entry Effect** to Scroll Text.

Adjust the **Speed** to a low setting. It is recommended to use the lowest speed setting. ***Text will scroll faster on the display than in the preview.***

Adjust the **Stay Time** to 00:00:00. This will prevent the text from pausing during playback.

Scrolling text should be used sparingly, as it is inefficient at communicating large amounts of information.



Scrolling Text Settings

Adding Images

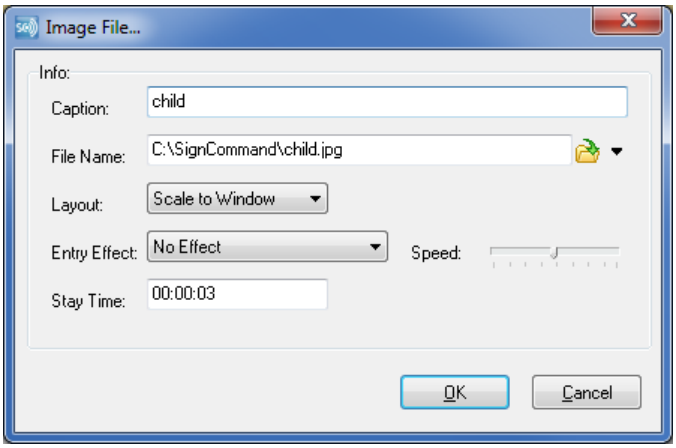
Images can be added to your TekStar display. The following image file formats are compatible with Sign Command: .BMP, .GIF, .JPG, .JPEG, .PNG, .TIF and .TIFF.

With a window selected, click **Add Image** in the Display Items toolbar.

Click the **folder icon** and browse to where the image file is located on your computer. Select it and click **Open**.

Select a **Layout** for the image. **Scale to Window** will resize the image proportionally, while **Fit to Window** will stretch the image to fill the entire window.

An **Entry Effect** and **Stay Time** can also be specified.



Add Image Window

Adding Video Clips

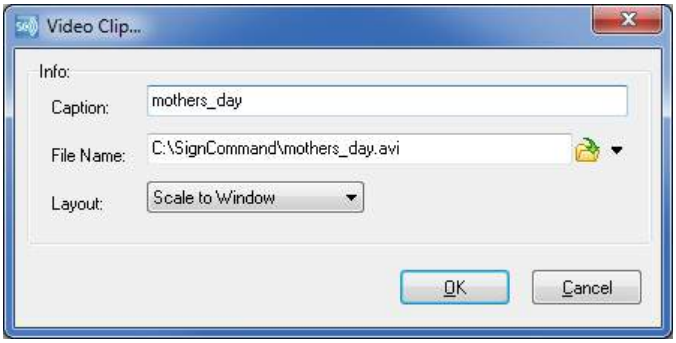
Video clips can be added to your TekStar display. The following video file formats are compatible with Sign Command: .ASF, .AVI, .MOV, .MP4, .MPEG, .MPG, .RMVB, .VOB and .WMV.

With a window selected, click **Add Video Clip** in the Display Items toolbar.

Click the **folder icon** and browse to where the video file is located on your computer. Select it and click **Open**.

Select a **Layout** for the image. **Scale to Window** will resize the video file proportionally, while **Fit to Window** will stretch the video file to fill the entire window.

Video clips will play in their entirety, and do not have a Stay Time value.



Add Video Clip Window

The amount of detail that can be shown on your display is dependent on the matrix size. Images and video clips that contain a large amount of detail may not show well.

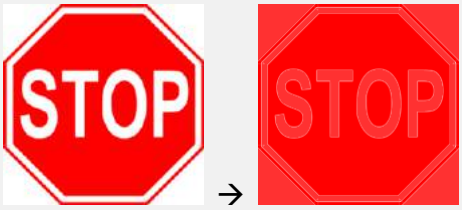
Special Instructions for Monochrome Displays

If your display is only capable of showing shades of red, special consideration must be made in selecting image and video clip files.

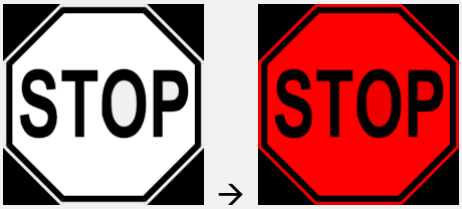
Because a monochrome display cannot show multiple colors, different colors of similar brightness will all show as red on the display.

It is best to use a grayscale image or video clip that only uses black, white and shades of gray. Other high-contrast colors are also acceptable.

If you are using a full-color image or video clip on a monochrome display, it is recommended to test it on the display or convert it into grayscale using photo editing software.



Because a monochrome display cannot show white, this image is displayed as entirely red.

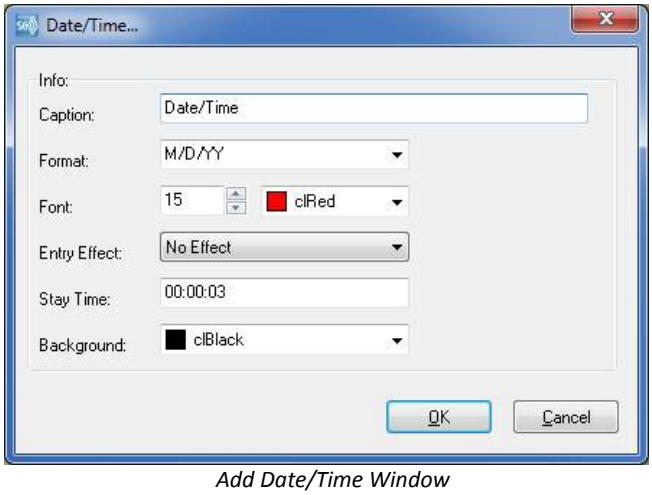


A high contrast image in grayscale works well for a monochrome display.

Adding Date & Time

Sign Command allows you to show the current date and time on the display. This information is derived from an internal clock within the display, which is updated from the computer running Sign Command.

With a window selected, click **Add Date/Time** in the Display Item toolbar. Select your desired options. The text size will be adjusted automatically to fit the information within the window.



Add Date/Time Window

The following formats are available for date and time. The examples use the date and time of Wednesday, July 4th, 2012 at 9:30 PM.

Format	Example
M/D/YYYY	7/4/2012
M/D/YY	7/4/12
MMM DD YYYY	Jul 04 2012
MMMM DD	July 04
WWWW	Wednesday
YYYY-MM-DD	2012-07-04
DD-MMM-YY	04-Jul-12
h:mm AP	9:30 PM
HH:mm	21:30

If the time or date is incorrect on your computer, it will be incorrect on the display. It is recommended to use a time-syncing service on your computer.

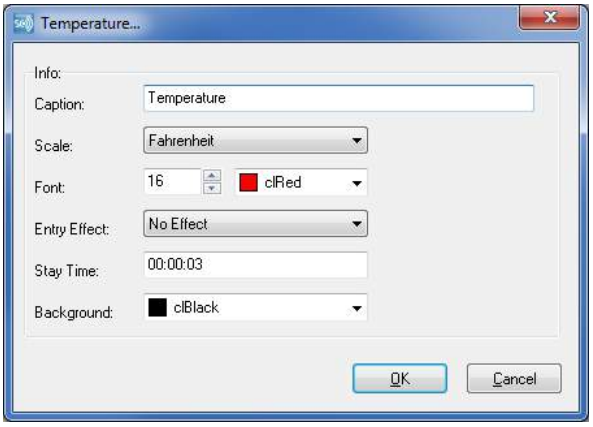
Adding Temperature

Sign Command allows you to show the current temperature on the display. The temperature is derived from a probe attached to the sign.

With a window selected, click **Add Temperature** in the Display Item toolbar.

Select a **Scale** of either **Fahrenheit** or **Celsius**.

Select your desired options. The text size will be adjusted automatically to fit the information within the window.



Add Temperature Window

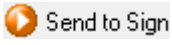
Previewing a Frame

Once your content has been added and configured, click

to view how the frame will appear on the display. Once you are done previewing the frame, click the **X** in the top right of the Preview window to close it.

Transmitting to the Display

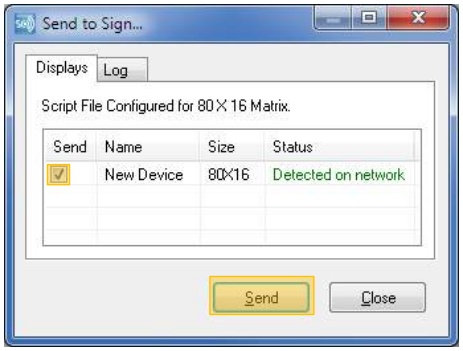
*The following feature is only available for displays with a network connection. If your sign is not network connected, use the **Exporting to USB** method to transmit your script file. If the device is not detected, you will not be able to transmit your script to the display.*

Click 

to open the Send to Sign window. If you have not yet saved your script file to the computer, you will be prompted to save it.

If not already selected, place a checkmark next to the display you wish to change and click **Send**. The log will post each step of the transmission.

Once complete, click **Close**. The script file will now be playing on the display.



Send to Sign Window

Once the file transfer is complete, it is not required to leave the Sign Command program running or your computer on.

Exporting to USB

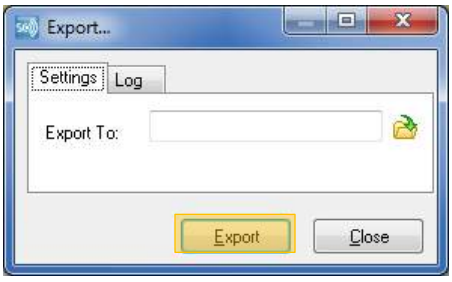
The USB drive that you use must not contain other data or folders, and must have enough storage space for all video clips and images used in the script file.

Plug in your USB drive into an open USB port on your computer. When the computer recognizes the USB drive, make note of the drive letter.

Click Export to USB in the top toolbar.

Click the **folder icon** next to the Export To box. Select your USB drive from the folder list. Do *not* select any subfolders within the drive. Click **OK** and then **Export**.

You will be alerted if the export was successful. **Close** the Export window and **remove** your USB drive from the computer.



Export Window

Plug in the USB drive into the USB port on the sign. The transfer of data will be automatic, and the file will begin playing momentarily. If the file does not transfer, see **Troubleshooting a USB Drive**.

Once the new file begins playing, the file transfer is complete. It is not required to leave the USB drive in the sign.

Working with Script Files

A script file is a list of text, images, and video clips that will be shown on your display, as well as information on duration, scheduling, and any transition effects selected. Script files are stored on your computer so that they may be changed at a future date.

To create a **new** script file, click New File.
To **open** an existing script file, click Open File... Browse to where the file is located and click **Open**.
To **save** your open script file to your computer, click Save File.

When Sign Command is closed and later restarted, it will open the last script file that was saved.

Sign Command script files use the .usc file extension. It is recommended that you save these files into the default folder (C:\Users\[username]\SignCommand). You may create as many script files as you would like.

Understanding Frames & Windows

A Sign Command script file contains several layers of information. This layering allows for more flexibility in designing what can be shown on the display. A script file must contain one or more *frames*.

The layers of a script file.

A **frame** is the basic unit of the script file. The frame is always the same pixel size as the display (for example 112 pixels wide by 24 pixels high).

All scheduling, such as setting a message to display at a certain date and time, takes place at the frame level. To be displayed, a frame must contain one or more *windows*.

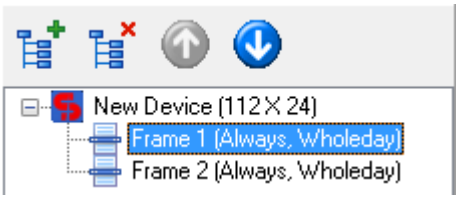
A frame containing two windows.
The left window contains three display items.
The right window contains one display item.

A **window** is a section of the frame dedicated for displaying one or more items. A window may be the entire size of the frame, or may only use a portion of the frame. By default, there is only one window that uses the entire frame. If multiple windows are added to a frame, they are shown at the same time. This is where the display items are added.

Working with Frames

A frame can be added to the script file by clicking the **New Frame** button. The new frame will be added to the end of the script file. New script files contain one frame by default.

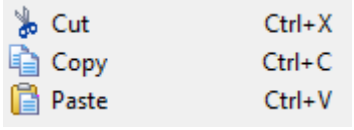
The frames contained in your script file can be seen in the **Frame & Window Tree**. The frame that is selected within the tree can have its properties and contents edited.



Frame & Window Tree with the first of two frames selected.

Frames can be reordered by clicking the **Move Frame Up** or **Move Frame Down** buttons.

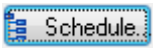
Frames can also be cut or copied, and then pasted elsewhere in the script file. Right-click on a frame and select **Cut** or **Copy**. Select a different frame within the script file, right-click it and select **Paste**.



Frames can be deleted by clicking the **Delete Frame** button. This will also remove any windows and display items residing in the frame.

Scheduling a Frame

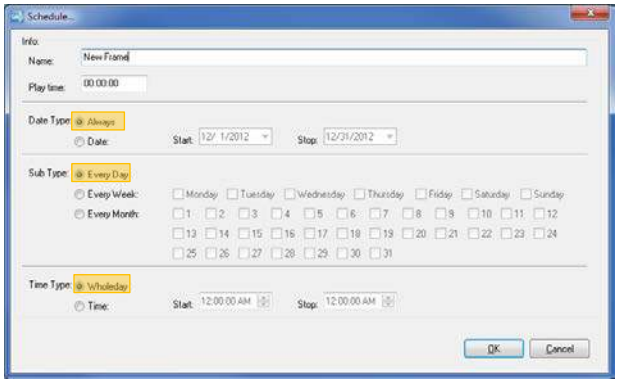
Individual frames can be scheduled to be displayed during certain days and times. These frames will begin showing at their scheduled start time, and end at the stop time. By default, scheduled frames will be shown on the display along with any other frames scheduled for that time.

With a frame selected, click the 

button.

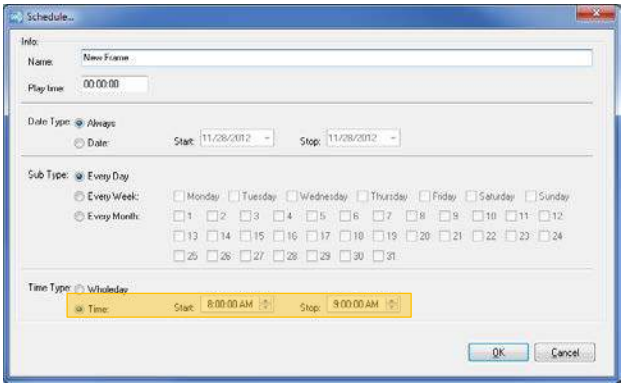
By default, frames are set to **Always**, **Every Day**, **Wholeday**. These frames will loop continuously on the display.

There must be at least one frame in the script file that has these settings. This ensures that there is always something showing on the display.



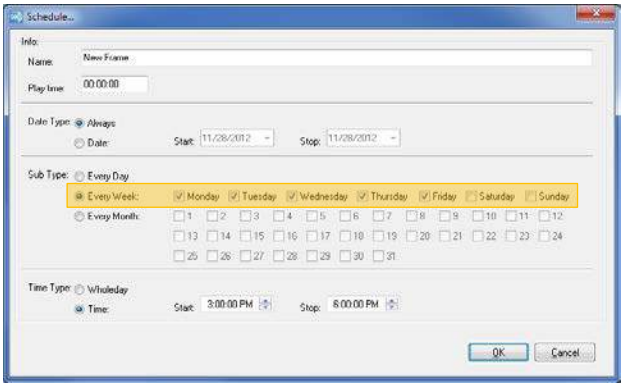
A frame scheduled to always be shown will loop continuously on the display.

To set a frame to only be displayed during a certain time, change the **Time Type** to **Time** and enter in a **Start** and **Stop** value.



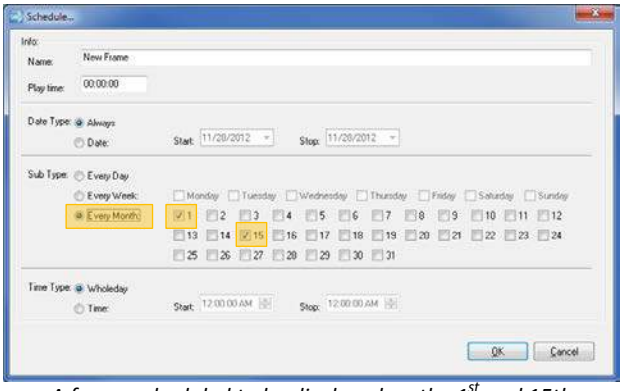
A frame scheduled to be displayed every day between 8:00 AM and 9:00 AM.

To set a frame to only be displayed during a certain day of the week, change the **Sub Type** to **Every Week** and select the days. This setting can be used in combination with the Time Type to only show the frame during certain times on the selected days.



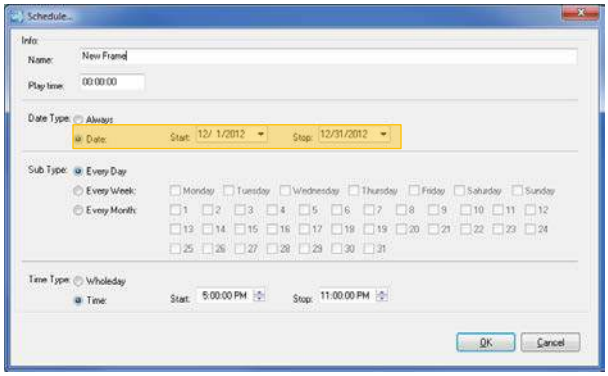
A frame scheduled to be displayed every weekday between 3:00 PM and 6:00 PM.

To set a frame to only be displayed during a certain day of the month, change the **Sub Type** to **Every Month** and select the days. This setting can be used in combination with the Time Type to only show the frame during certain times on the selected days.



A frame scheduled to be displayed on the 1st and 15th of every month, throughout the whole day.

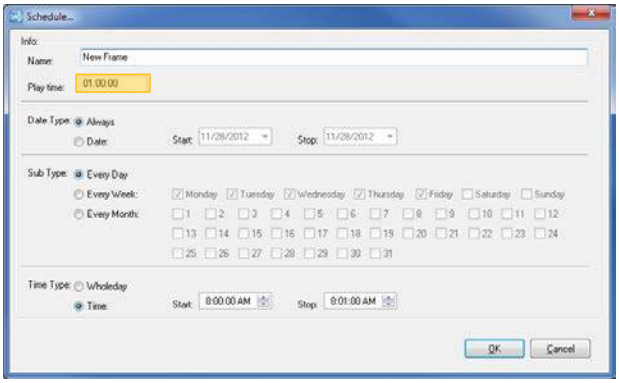
Frames can also be set to only show between certain dates. Change the **Date Type** to **Date** and select a **Start** and **Stop** value. This setting can be used in combination with Sub Type and Time Type to only show the frame during certain days and times between the selected dates.



A frame scheduled to be displayed every day from 12/1/2012 to 12/31/2012, between 5:00 PM and 11:00 PM.

By default, a scheduled frame will rotate in with other scheduled frames and the Always, Wholeday frame. However, there may be instances when you *only* want to show a certain frame for a set amount of time.

To do this, change the **Play time** to the duration in `hours:minutes:seconds`. The frame will now show exclusively for the set amount of time. The Stop time is not relevant assuming that it occurs before the end of the Play time.

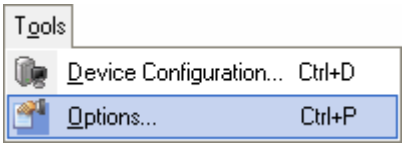


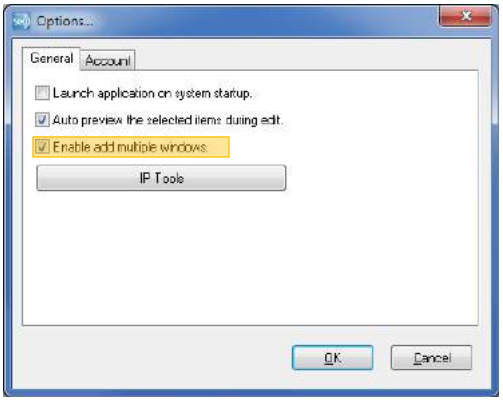
A frame scheduled to play exclusively for one hour every day starting at 8:00 AM.

Working with Multiple Windows

By default, there is only one window per frame that takes up the entire size of the frame. There may be instances, however, where you may wish to have multiple windows within the frame. This allows for displaying multiple items at the same time; for example, showing text next to an image, or the temperature next to the time.

To enable the use of multiple windows, click **Tools > Options**.





Select **Enable add multiple windows** and click **OK**. Once enabled, the Window Controls will become available. It may be necessary to click off and back onto the frame for the change to take effect.

With a frame selected, click the **New Window** button. This will add a new window inside the frame. By default, the window takes up the entire size of the frame.

Orange sizing boxes used to resize the window.

To size the window smaller, click and drag one of the orange sizing boxes surrounding it. You can also directly enter values into the **Window Settings** box to resize and position the window. The values are measured in pixels.

A frame with two windows, allowing two items to be displayed at the same time.

Other Window Controls

Delete Window - Removes the window and any display items inside the window.

Move Window Up – Moves a window in front of another if they are overlapping. *Only available if there are multiple windows in the frame.*

Tile Window Horizontal - Sizes and positions windows so they are stacked horizontally. *Only available if there are multiple windows in the frame.*

Load Window Template – Loads the size and position of all windows from a file created by *Save Window Template*.

Maximize Window - Resizes the window to fit the entire frame.

Move Window Down – Moves a window behind another if they are overlapping. *Only available if there are multiple windows in the frame.*

Tile Window Vertical – Sizes and positions windows so they are stacked vertically. *Only available if there are multiple windows in the frame.*

Save Window Template – Saves the size and position of all windows to a file that can be loaded into another frame.

Setting Password Protection

Two levels of password protection can be set within Sign Command:

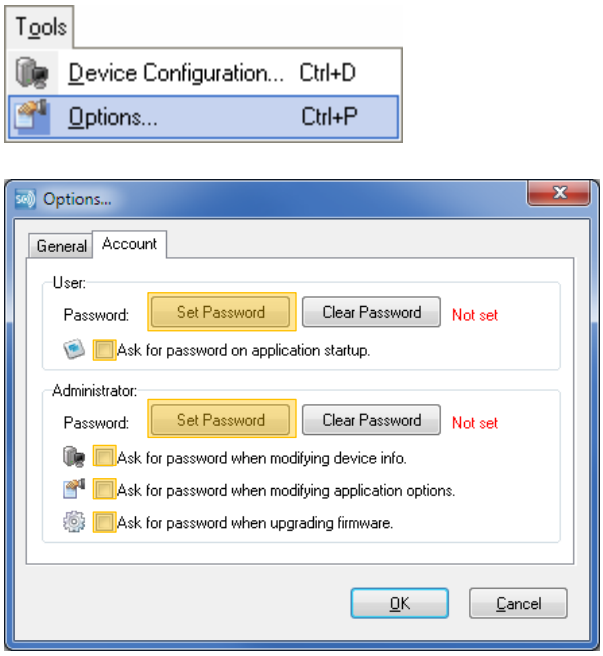
- A **User** password prevents unauthorized use of the Sign Command software by requiring the password at startup. This is the most common type of password protection.
- An **Administrator** password prevents unauthorized changes to device settings, such as matrix size, and/or application settings, such as changing passwords.

Select **Tools > Options** from the file bar, and click the **Account** tab.

To set a User password, click **Set Password** in the User box. Type your desired password and click **OK**. Put a check mark in **Ask for password on application startup**.

To an Administrator password, click **Set Password** in the Administrator box. Type your desired password and click **OK**. Put a check mark in the **device info**, **application options** and/or **upgrading firmware** boxes.

If you are setting both the User and Administrator passwords, it is recommended that they are different from each other.



Options Window

When specifying a password, be sure to type your password correctly and keep a written copy of it in a secure location.

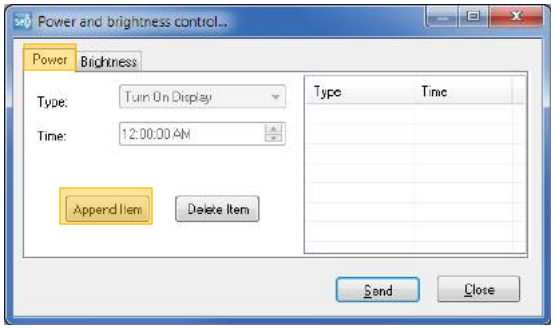
Changing the Time

The date and time shown on your TekStar sign is derived from an internal clock. This clock may occasionally become out of sync with the actual time due to variations in environmental conditions within the display, or due to time changes as with Daylight Savings Time.

When a new message is transmitted using **Send to Sign**, the current date and time information from your computer is sent to the display. If you use a network connection to communicate to the sign, simply resend your most recent script file to change the internal clock. If you only use the USB method to connect to your display, please see **Connecting a Laptop** in the appendix.

Power and Brightness Control

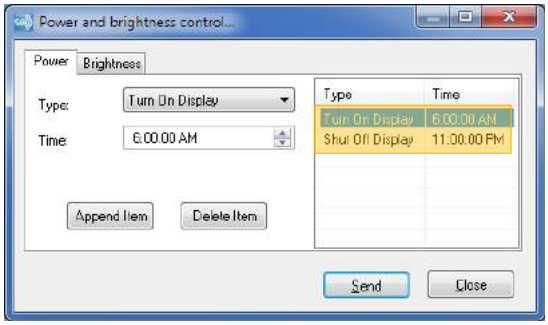
The display can be set to turn off and on at certain times, as well as have the brightness of the display change. Select **Control > Power and brightness control** to open the control window.



Power and Brightness Control Window

To set a power schedule, click **Append Item** *twice* under the **Power** tab.

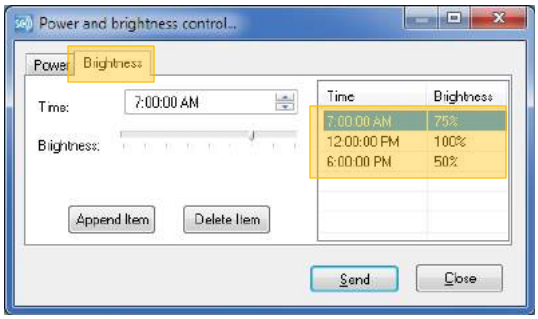
Set the time for the first item to when the display should turn on. On the second item, change **Type** to **Shut Off Display** and set the time. A power schedule should have a minimum of one Turn On Display and one Shut Off Display, but may have more depending on your needs.



A power schedule set to turn on the display at 6:00 AM and off at 11:00 PM

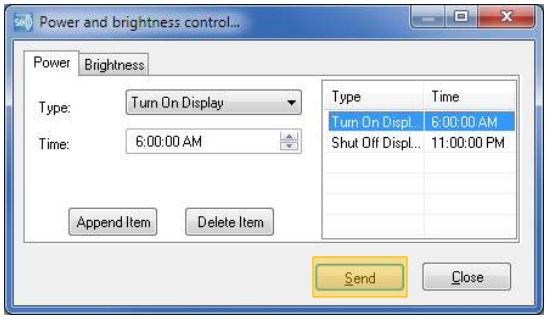
A brightness schedule can also be set under the **Brightness** tab. Click **Append Item** and adjust the Time and Brightness level for each point in the schedule. A brightness schedule requires a minimum of two items, but may have more depending on your needs.

Most displays have ambient light sensors that will automatically change the display brightness depending on outside conditions. It is recommended to only use brightness scheduling if absolutely necessary.



A brightness schedule set to change the brightness from 75% to 100% to 50% throughout the day.

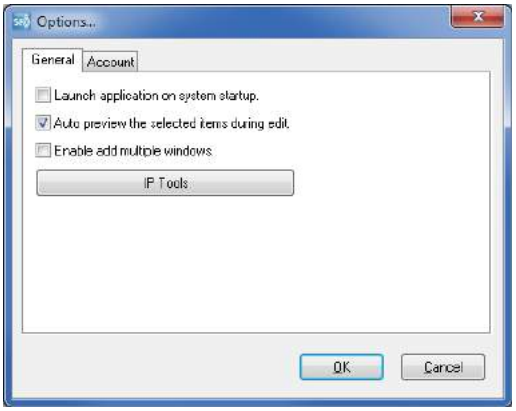
If you use a network connection to communicate to the sign, click the **Send** button to transmit the power and brightness schedules. If you only use the USB method to connect to your display, please see **Connecting a Laptop** in the appendix.



Setting Other Options

In the **General** tab of the Options window, Sign Command can be set to launch automatically when your computer is started.

The auto preview of display items in the frame editor can also be disabled.



Options Window

Appendix

Connecting with a Laptop

For TekStar owners that purchased a sign without a dedicated network connection, there will be instances when it is necessary to connect to the sign with a network cable. These instances include:

- Changing the date or time on the display. For example, during Daylight Savings Time changes.
- Adding or changing a power schedule for when the display turns on and off.
- Adding or changing a brightness schedule for when the display dims and brightens.
- Upgrading the firmware on the display.

You will require the following items:

A laptop with an Ethernet port and an installed and activated version of the Sign Command software

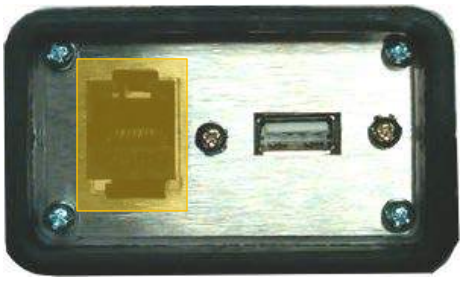
- and -

a standard network cable.

1. Bring the laptop and network cable out to the sign. Plug one end into the Ethernet port in the computer, and the other into the sign:

*If your sign does **not** have a dedicated network connection:*

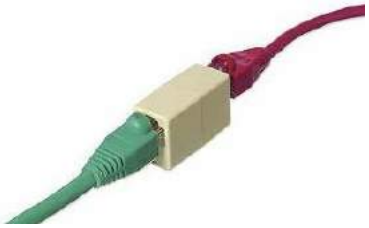
The Ethernet port on your sign is located next to the USB port:



- or -

*If your sign **will** have a dedicated network connection, but is not yet connected:*

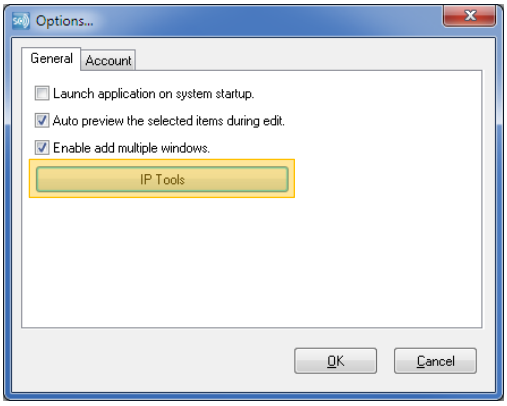
The Ethernet connection is at the end of a drop-down cable inside the leg with the USB box. Use an Ethernet RJ45 coupler to connect your cable.



(Ethernet RJ45 coupler not provided)

Steps 2 through 5 below will only work on displays using firmware version 0612.1023 or higher. If your display uses older firmware, use steps A through F on the next page.

2. Select **Tools > Options** and click **IP Tools** in the General tab.

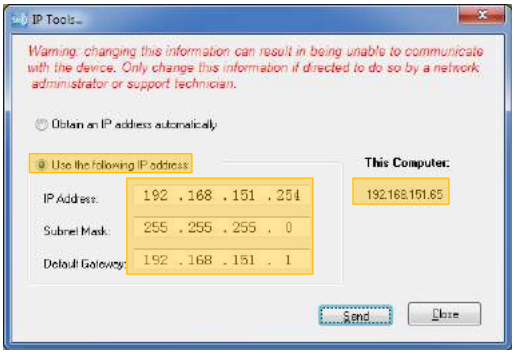


3. Select **Use the following IP address**. Note your computer's IP address on the right.

   For **IP Address**, enter the **first three sections of your computer's IP address** followed by **254**.

   For **Subnet Mask**, enter `255.255.255.0`

   For **Default Gateway**, enter the **first three sections of your computer's IP address** followed by **1**.


IP Tools...
Warning: changing this information can result in being unable to communicate with the device. Only change this information if directed to do so by a network administrator or support technician.
Obtain an IP address automatically
Use the following IP address:
IP Address:
192 . 168 . 151 . 254
Subnet Mask:
255 . 255 . 255 . 0
Default Gateway:
192 . 168 . 151 . 1
This Computer:
192.168.151.65
Send
Close

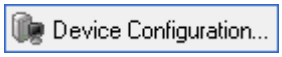
   For example, if your computer's IP address is `192.168.0.100`*, you would enter:*

   IP Address: `192.168.0.254`
   Subnet Mask: `255.255.255.0`
   Default Gateway: `192.168.0.1`

   *If your computer's IP address ends with 254 or 1, change **IP Address** or **Default Gateway** to have a different value than your computer's IP address.*

4. Click **Send**. Click the **Close** button once it becomes available.

5. Turn the power to your display **off** and then back **on**. Wait until it begins showing your message.

6. Click 

and then **Detect New Displays** to locate and add the display. You should now be able to communicate with the sign over the network cable. Network functions such as **Send to Sign**, **Power & Brightness Control** and **Upgrade Firmware** will be available as long as the network cable is connected.

Special Instructions for Older Firmware

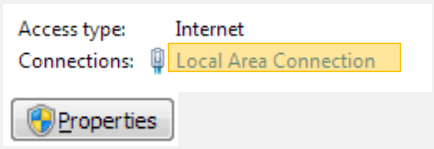
With displays that use firmware lower than 0612.1023, the IP address must be changed on the laptop rather than the display.

A. In the **Windows Control Panel**, open **Network and Internet Connections** *(Windows XP)* or **Network and Sharing Center** *(Windows Vista, 7 or 8).*

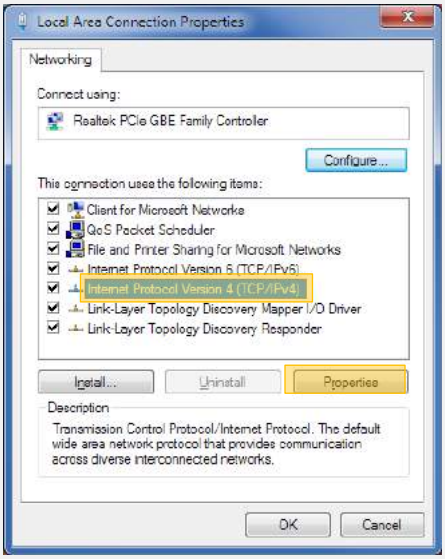
(Windows XP)

(Windows Vista, 7 or 8)

B. Click on **Local Area Connection** and click **Properties**.



C. Select **Internet Protocol Version 4 (TCP/IPv4)** and then click **Properties**.

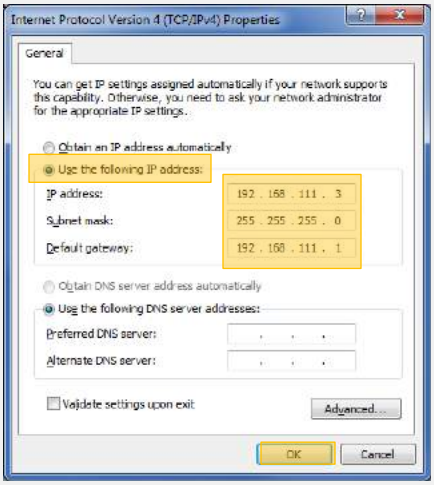


D. Make a note of any existing settings. Select **Use the following IP address** and enter the following values for **IP address**, **Subnet mask** and **Default gateway**:

IP Address:	**192.168.111.3**
Subnet Mask:	**255.255.255.0**
Default Gateway:	**192.168.111.1**

E. Click **OK** for both windows.

F. You should now be able to communicate with the sign over the network cable.


Internet Protocol Version 4 (TCP/IPv4) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 192 . 168 . 111 . 3
Subnet mask: 255 . 255 . 255 . 0
Default gateway: 192 . 168 . 111 . 1
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Validate settings upon exit
Advanced...
OK
Cancel

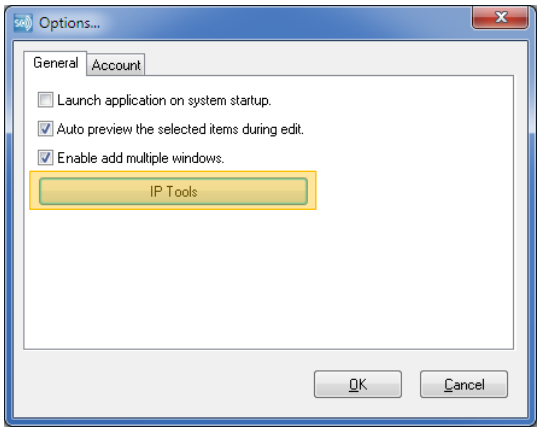
Changing the Sign's IP Address

The display is set to automatically detect and use an available IP address that is compatible with the local network. However, there may be times when this information must be manually set.

*The display must be connected with the local network (wired or wireless), or a laptop must be directly connected to the sign. This procedure will only work on displays using firmware version 0612.1023 or higher. See **Upgrading the Firmware** for more information.*

*These instructions will change the IP address of all displays on the network. If you are configuring **multiple displays**, you must disconnect all but one display from the network and repeat these instructions for each one. Each display requires a different IP address.*

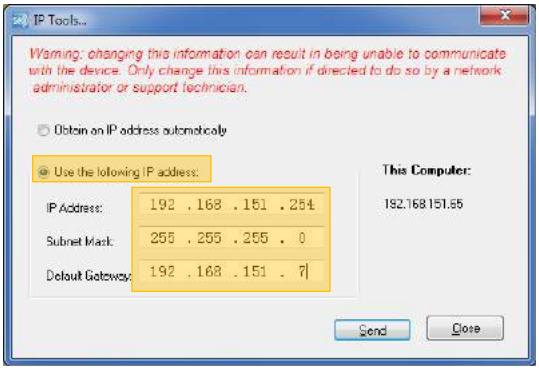
1. In the Sign Command toolbar, select **Tools > Options** and click **IP Tools** in the General tab.



2. Select **Use the following IP address**.

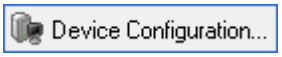
   Enter the IP information you wish to use in the boxes provided.

   If you do not have IP information to use, the following is suggested:
   - *Use the first three sections of your computer's IP address, followed by 254.*
   - *Use the same subnet mask and default gateway as your computer. This can be found in Windows by going to **Start** > **Run**, typing* **cmd**, *pressing **OK**, typing* **ipconfig** *in the black box and pressing **Enter**.*


IP Tools...
Warning: changing this information can result in being unable to communicate with the device. Only change this information if directed to do so by a network administrator or support technician.
Obtain an IP address automatically
Use the following IP address:
IP Address:
192 . 168 . 151 . 254
Subnet Mask:
255 . 255 . 255 . 0
Default Gateway:
192 . 168 . 151 . 7
This Computer:
192.168.151.65
Send
Close

3. Click **Send**. Click the **Close** button once it becomes available.

4. Turn the power to your display **off** and then back **on**. Wait until it begins showing your message.

5. Click 

and check if the display has been automatically detected. If not, click **Detect New Displays**.

Upgrading the Firmware

Firmware is simply the software that runs inside of the display. At times the firmware may require an update, such as when upgrading from version 0.20 to version 1.10 of Sign Command. It is recommended to upgrade the firmware *only* when required to do so. *The Update Firmware button in Sign Command is for future development and is not currently used.*

You must first have the appropriate firmware files downloaded and available on your computer. These files are available on the support website at www.stewartsigns.com/support/tekstar or from a support technician.

*The display **must** be connected with the local network (wired or wireless), **or** a laptop must be directly connected to the sign. Please see **Connecting with a Laptop** for more information.*

1. In the compressed file, move the folders **`ledset`** and **`firmware`** out and into any folder on your C: drive.

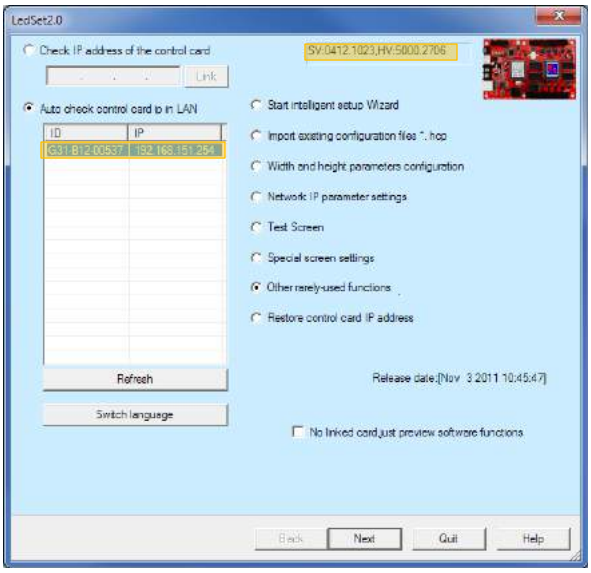
2. Browse into the **`ledset`** folder and double-click on the **`LedSet2.0.exe`** file.

3. In the LedSet2.0 window, s**elect the device** you wish to upgrade from the list on the left. If you have one display, only one will be listed.

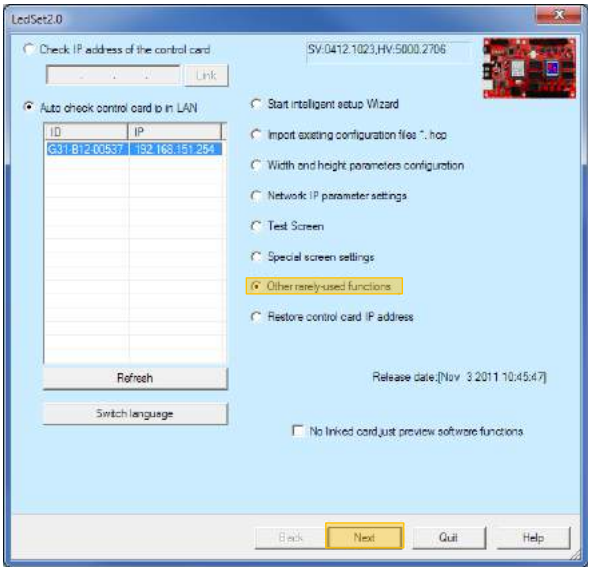
4. **Note the current firmware and hardware version** at the top of the window. The firmware version will start with **SV**, the hardware version will start with **HV**:

   SV: _____:_____

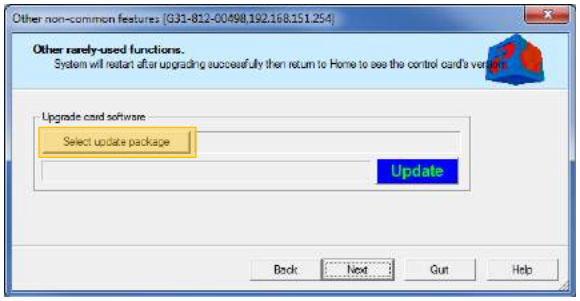
   HV: _____:_____



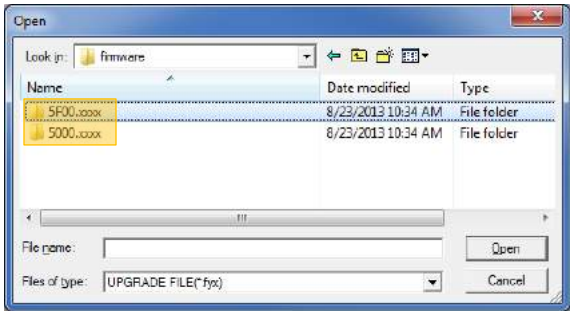
5. Select **Other rarely-used functions** and click **Next**.



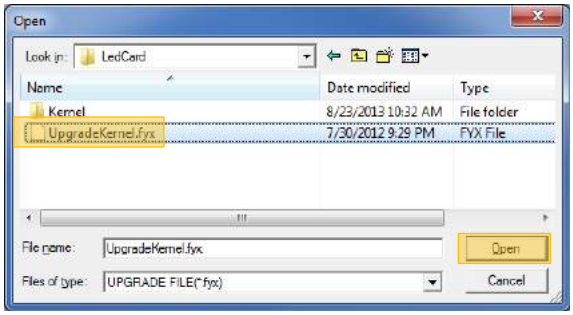
6. Click **Select upgrade package** and browse to the **`firmware`** folder you moved in step 1.



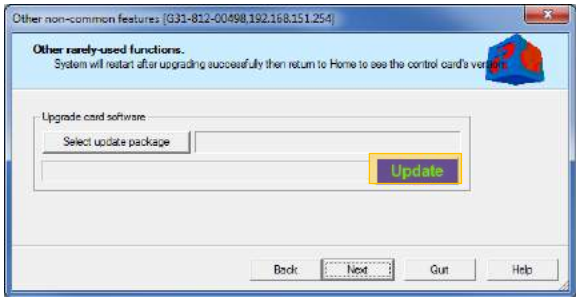
7. If the **HV** number you noted in step 4 starts with **5F00**, then select the **5F00.xxxx** folder. If the HV number starts with **5000**, select the **5000.xxxx** folder.



8. Select the **`LedCard`** directory and then the **`UpgradeKernal.fyx`** file and click **Open**.



9. Click **Update**. *Only click this button once!*



10. *Wait until the upgrade is complete* before closing the window. This may take a few minutes. You will receive an **Upgrade successful** message once complete.

11. Turn the power to your display off and then back on for the changes to take effect.

12. After the display has been rebooted, close and reopen the LedSet program (step 2) and check the current firmware version with the version you noted in step 4. If the numbers are the same, repeat this procedure starting with step 5.

Installing Wireless Hardware

A display purchased with either the short-range or long-range wireless options are equipped with an industry-leading Ubiquiti PicoStation receiver for wireless communication. The long-range option will use a higher powered transmitter, but the setup is identical to the short-range option.

The wireless transmitter must be installed on your computer network in order to communicate with the sign. The following parts should be included in the communication kit:

Wireless Transmitter & Antenna*

Power & Network Connection

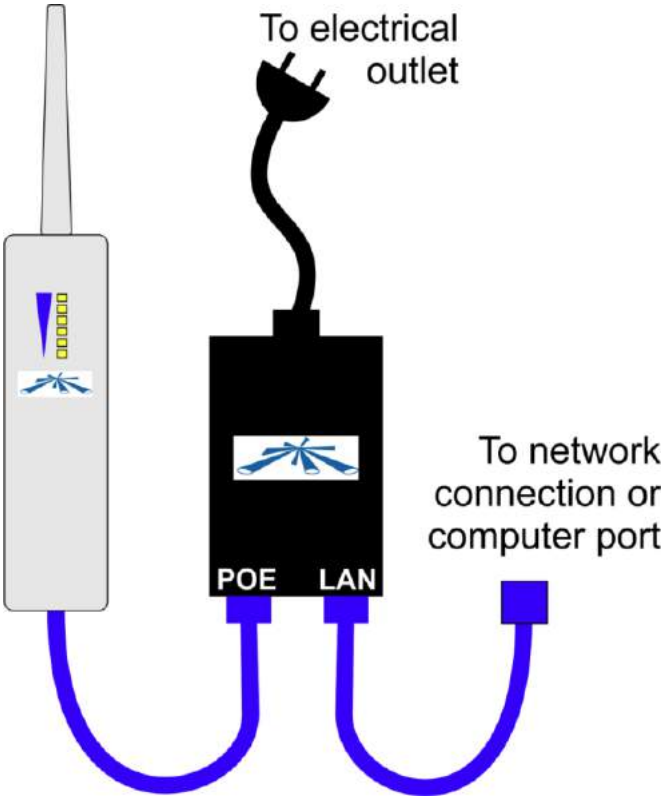
Two network cables

* Your sign may also come with a separate black receiver antenna. If this part has been shipped separately, attach it to the sign by screwing it into the receiver port (typically located on the side of the sign).

For best connectivity, it is recommended to have direct line-of-sight between the transmitter and the sign. If line-of-sight is not achievable, place the transmitter at the closest available point with the least number of obstructions between the transmitter and the sign.

Slide the bottom front of the transmitter off, and plug in the end of one of the network cables.

Configure the parts and cables into the following arrangement:



The other end of the **LAN** cable should be plugged into a network port, hub or switch that is connected to your network. This is typically the same type of plug that connects your computer to the network. If you will be using a computer that is not connected to any network, the LAN cable can be connected directly to the back of the computer.

Some of the lights on the transmitter should begin to illuminate, indicating that it is plugged in. If there is power turned on at the sign, all of the lights should illuminate, indicating that a wireless connection has been established.

Troubleshooting a Network Connection

If Sign Command does not recognize the display as being on the network, there are several places where the problem could be occurring. Confirm that each step below is complete before moving to the next.

☐ **There is power at the sign site and to the display.**
Make sure all electrical breakers are turned on. The display should be showing a message (or listen for the internal fans running inside of the display if no message is showing).

☐ **The display is connected to the local network.**

*If the display has a **wired** connection:*

- ☐ One end of the Ethernet cable is connected to the Ethernet cable located within the leg of the sign (the same leg that has the USB box). See the sign installation guide if you require instructions on connecting these cables.
- ☐ The other end of the Ethernet cable is plugged into a hub or switch that is connected to your network. Lights on the hub or switch show a connection.

*If the display has a **wireless** connection:*

- ☐ The black receiving antenna is attached to the sign.
- ☐ The wireless transmitter is configured and connected to the network as per the instructions in **Installing Wireless Hardware**, and lights are showing on the transmitter.

☐ **The display has an IP address that is compatible with the local network.**
Follow the instructions in the **Changing the Sign's IP Address** chapter and select an IP address that will work with your local network. If you have tried this step before and have been unsuccessful, there may be a conflict with another device. Try changing the last portion of the IP address to a different number.

☐ **The display is reachable through the PING utility.**

1. In Windows, click the **Start button** and select **Run**.
2. Type **`cmd`** and click **OK**.
3. In the black window, type **`ping`**, a **space**, and then the **IP address** that was set for the display. For example, if the IP address of the display was set to 192.168.0.254, you would type:
   `ping 192.168.0.254`
4. If successful, the packets sent should equal the packets received. If not successful, you will receive a "Destination host unreachable" error.
5. If you receive this error, try changing the IP address per the prior checklist item above.
6. If you have attempted changing the IP address several times and cannot complete this step, there may be a hardware issue with your display. Contact a support technician for assistance.

☐ **The computer has all anti-virus and firewall software turned off.**
Temporarily disable any anti-virus or firewall software running on the computer. This will help to determine whether these programs are interfering with communication to the sign. If so, contact a support technician.

☐ **The display is using the most up-to-date firmware.**
Download and install the most recent firmware per the **Upgrading the Firmware** chapter.

☐ **The computer is using the most up-to-date version of Sign Command.**
Download and install the most recent version of Sign Command per the **Installing the Software** chapter.

☐ **The device can be found in Sign Command.**
In the **Device Configuration** window, click **Detect New Displays**.

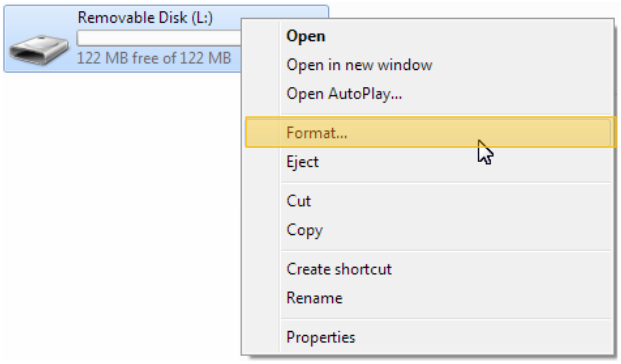
Troubleshooting a USB Drive

For maximum compatibility, it is recommended to only use the USB drive that was supplied with the display. Other USB drives may also work depending on their settings and other factors. If you have a USB drive that is not communicating with the display, performing a reformat may correct the issue.

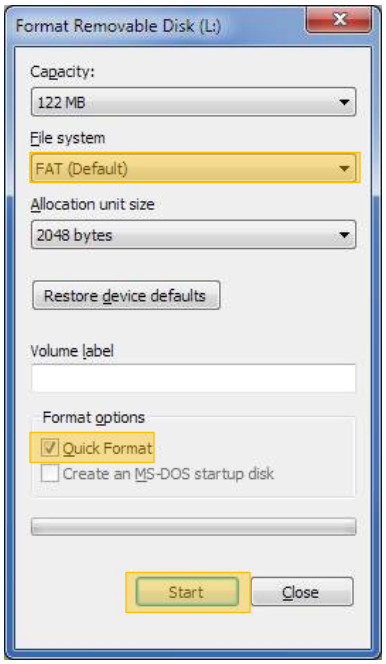
*The USB drive must **only** contain the Sign Command files to be used with the display. It is recommended to try deleting all files on the drive and Export to USB again before continuing.*

1. In My Computer or Windows Explorer**,** **right click** on the USB drive letter and select **Format**.

   Make sure you have selected your USB drive for formatting, as all data on this drive will be deleted!



2. Select **FAT (Default)** for the file system.
3. Select **Quick Format**.
4. Click **Start**.



5. Once complete, close out of the formatting window. In Sign Command, use **Export to USB** to place your message onto the USB drive.